

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JACK M. STROK, GARY R. ALLEN
and THOMAS G. PARHAM

Appeal No. 97-2909
Application No. 08/332,317¹

ON BRIEF

Before CALVERT, Administrative Patent Judge and McCANDLISH,
Senior Administrative Patent Judge and STAAB, Administrative
Patent Judge.

CALVERT, Administrative Patent Judge.

¹ Application for patent filed October 31, 1994.

Appeal No. 97-2909
Application No. 08/332,317

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 to 21, all the claims in the application.

The invention in issue is summarized on page 3 of appellants' brief as follows:

The invention is an arc tube with a visible-light-transparent film which is coated on the cold regions of the arc tube but not on the hot regions. The film transmits visible radiation and absorbs ultraviolet radiation emitted by the arc to impose an additional heat load on the cold regions so that the metal halides will not condense and so that a high metal halide vapor pressure can be maintained. The transparent film is not coated on the hot regions, since additional heat load at the hot regions would be detrimental. The transparent film also reflects infrared radiation emitted by the arc tube back to the arc to increase efficiency and further increase the temperature of the cold region due to decreased thermal emittance. The transparent film is preferably a dichroic coating having alternating layers of high and low index of refraction refractory materials.

The appealed claims are reproduced in the appendix of appellants' brief.

The references applied in the final rejection are:

Meulemans et al. (Meulemans)	4,307,315	Dec.
22, 1981		
Parham et al. (Parham)	4,949,005	Aug. 14,
1990		

Appeal No. 97-2909
Application No. 08/332,317

Arlt et al. (Arlt) 1991	5,017,839	May 21,
Bergman et al. (Bergman) 22, 1991	5,059,865	Oct.

The appealed claims stand finally rejected under 35
U.S.C.

§ 103 as unpatentable over the following combinations of
references:

- (1) Claims 1 to 11, Arlt in view of Meulemans;
- (2) Claims 12 to 14, Arlt in view of Meulemans and Parham;
- (3) Claims 15 to 21, Arlt in view of Meulemans and Bergman.

With respect to rejection (1), the examiner notes that Arlt discloses a light generating means in a vitreous light-transmitting envelope which is coated with a "dichroic coating 9 of titanium dioxide and silicon dioxide" (col. 3, lines 38 and 39). Since these are the same materials of which appellants' coating may be made, i.e., titania and silica, and are claimed in claim 14, the examiner asserts that the coating would inherently absorb ultraviolet while transmitting visible light, as recited in appellants' claims (answer, page 5). The examiner takes the position that the claimed light source would have been obvious because "Meulemans teaches only

Appeal No. 97-2909
Application No. 08/332,317

coating part of the lamp for providing heat stability, and therefore, to provide heat stability in the lamp of Arlt, one could provide a partial coating" (id.).

We will not sustain this rejection. In the first place, as appellants point out in their reply brief, Meulemans does not disclose a "coating" on the envelope, as the examiner states, but rather the use of doped UV-absorbing glass for the "cold" regions of the lamp. Also, we are not convinced that the coating of Arlt would necessarily be UV-absorbent, especially since Arlt discloses using doped glass to absorb UV radiation (col. 3, lines 44 to 47).

In any event, we do not consider that it would have been obvious to one of ordinary skill to modify Arlt as proposed by

the examiner. Arlt discloses coating the entire lamp envelope with an IR-reflective coating in order to aid in providing a fast start when switched on, and it is not evident why one of ordinary skill would reduce this capability by eliminating part of the coating. Meulemans does not furnish a motivation for doing so, because Meulemans relates to UV absorption, rather than to the IR reflection for which Arlt's coating is used. If anything, Meulemans might teach doping part, rather than all, of the glass of Arlt's envelope 2 in order to provide selective UV absorption. However, since Meulemans says nothing about IR reflection, it would not suggest applying Arlt's IR-reflective coating to less than the entire envelope. The examiner's assertion that this modification of Arlt "could" be provided does not make the modification obvious, since its desirability is not suggested by the prior art. In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Rejections (2) and (3) will likewise not be sustained, since the Parham and Bergman references applied therein do not overcome the deficiencies of the combination of Arlt and Meulemans noted above.

Appeal No. 97-2909
Application No. 08/332,317

Rejection Under 37 CFR § 1.196(b)

Pursuant to 37 CFR § 1.196(b), claims 1 to 21 are
rejected

under 35 U.S.C. § 103 as unpatentable over Meulemans in view of Bergman. As noted above, Meulemans discloses a light source of the type claimed in which the cold regions of the vitreous envelope are made of transparent, UV-absorbing quartz glass, and the hot regions are made of normal (UV-permeable) quartz glass. Bergman discloses the same type of light source in which the vitreous envelope 16 may have a coating 42 consisting of alternating layers of tantalum oxide and silicon dioxide or titanium oxide and silicon dioxide (col. 4, lines 2 to 6). This coating reflects infrared energy and also "absorbs the ultraviolet energy of the lamp 16" (col. 4, lines 13 to 15). In view of this disclosure, it would have been obvious to one of ordinary skill in the art to use Bergman's UV-absorbing coating on the lamp of Meulemans instead of the UV-absorbing glass portions 2 of Meulemans, this being simply the use of one known UV-absorbing means in place of another. As for claim 15 et seq., it would have been obvious to provide the Meulemans lamp with a reflector in view of Bergman's disclosure thereof.

We recognize that both in appellants' specification (page 3, lines 20 to 27) and in their brief (page 6, lines 1 to 9),

Appeal No. 97-2909
Application No. 08/332,317

they criticize the Meulemans lamp structure as being laborious, expensive and impractical. Appellants also argue in their brief

(pages 6 to 7) that using a transparent film instead of Meulemans' doped quartz pieces is "not a mere matter of design choice," but "there are many advantages" to applying a film to portions of an undoped quartz arc tube vs. putting together such a tube from pieces of doped and undoped quartz glass. However, the fact that a modification of the prior art may produce beneficial results is not conclusive on the question of obviousness, but rather, if such results are expected, they are evidence of obviousness. Ex parte Novak, 16 USPQ2d 2041, 2043 (BPAI 1989); affd. mem., 899 F.2d 1228, 16 USPQ2d 2043 (Fed. Cir. 1990). Here, we consider that it would have been expected by one of ordinary skill that it would be less laborious and/or expensive to apply a coating to a known lamp envelope than to fabricate a new envelope out of pieces of two different kinds of quartz glass. Therefore, the asserted advantages resulting from appellants' invention are not persuasive that claims 1 to 21 would not have been obvious over Meulemans in view of Bergman.

Appeal No. 97-2909
Application No. 08/332,317

Conclusion

The examiner's decision to reject claims 1 to 21 is reversed. Claims 1 to 21 are rejected pursuant to 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)).

37 CFR

§ 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

Appeal No. 97-2909
Application No. 08/332,317

(2) Request that the application be reheard
under § 1.197(b) by the Board of Patent Appeals
and Interferences upon the same record. . . .

Appeal No. 97-2909
Application No. 08/332,317

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136 (a).

REVERSED; 37 CFR § 1.196(b)

IAN A. CALVERT)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
HARRISON E. MCCANDLISH)	APPEALS
Senior Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
LAWRENCE J. STAAB)	
Administrative Patent Judge)	

SLD

Appeal No. 97-2909
Application No. 08/332,317

Pearne, Gordon, McCoy & Granger, LLP
1200 Leader Building
Cleveland, OH 44114

Shereece

Appeal No. 97-2909
Application No. 08/332,317

APJ CALVERT

APJ STAAB

APJ MCCANDLISH

REVERSED

Prepared: November 9, 1999